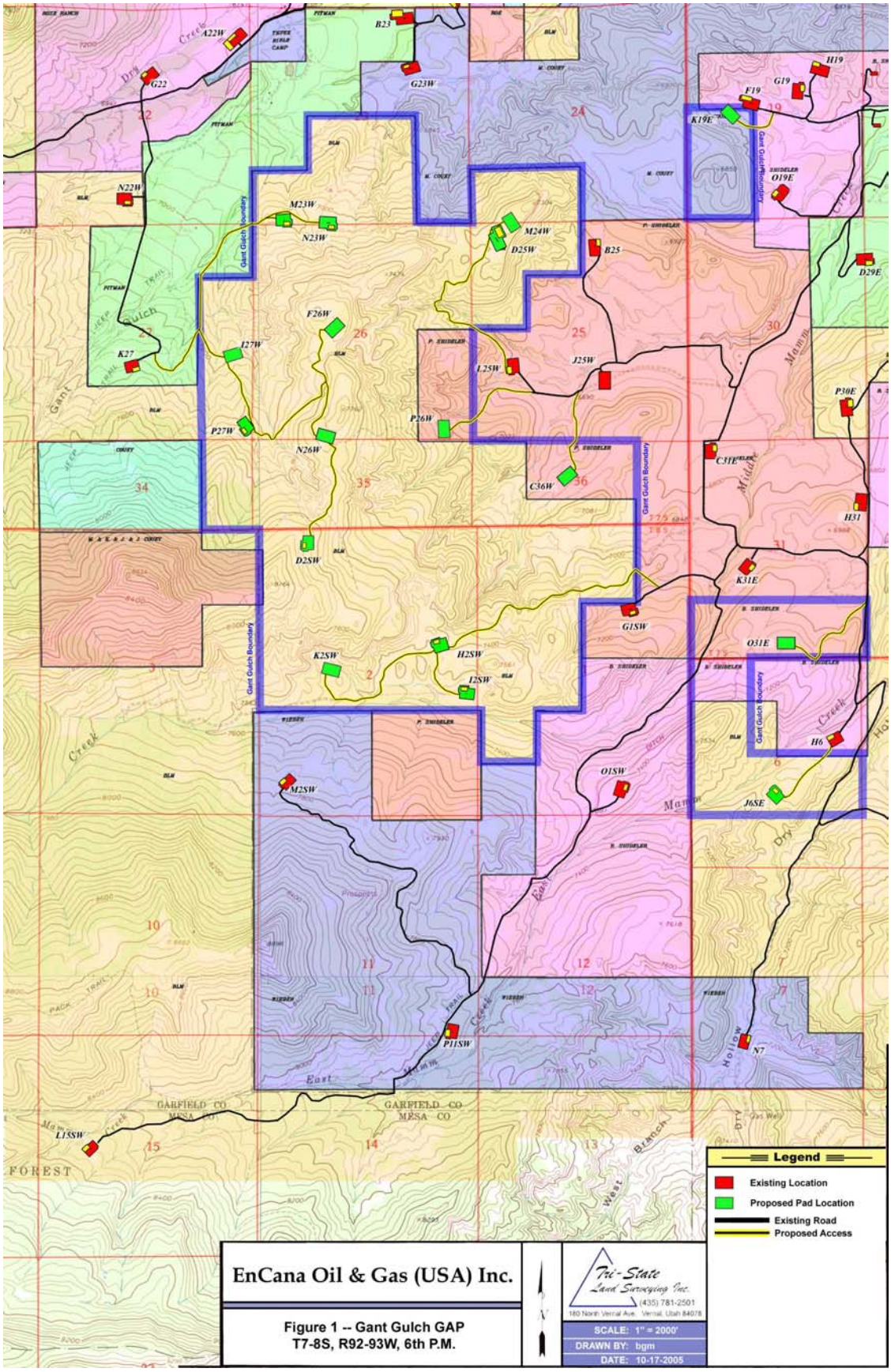
LIST OF APPENDICES

APPENDIX A
GAP MAP, 13-POINT SURFACE USE PLAN, AND 10-POINT DRILLING PLAN FOR THE GANT GULCH GAP

T7S, R92W SECTIONS 19 AND 31
T7S, R93W, SECTIONS 23-27, 34-36
T8S, R92W, SECTION 6
T8S, R93W, SECTIONS 1 AND 2, SIXTH PRINCIPAL MERIDIAN
GARFIELD COUNTY, COLORADO


EnCana Oil & Gas (USA) Inc.
Figure 1 -- Gant Gulch GAP
T7-8S, R92-93W, 6th P.M.
Tri-State Land Surveying Inc.
(435) 781-2501
180 North Vernal Ave. Vernal, Utah 84078
SCALE: 1" = 2000'
DRAWN BY: bgm
DATE: 10-17-2005
Legend
Existing Location
Proposed Pad Location
Existing Road
Proposed Access
Gant Gulch Boundary
A23W
B23
G22
G23W
H19
G19
F19
K19E
O19E
N22W
M23W
N23W
M24W
D25W
B25
D29E
F26W
I27W
K27
L25W
J25W
P30E
P27W
P26W
N26W
C31E
C36W
H31
D2SW
K31E
G1SW
O31E
K2SW
H2SW
I2SW
H6
M2SW
O1SW
J6SE
P11SW
N7
L1SSW
GARFIELD CO
MESA CO
FOREST

13 Point Surface Use Plan

1. **EXISTING ROADS**
   A. The proposed wellsite is staked and reference stakes are present as shown on attached Topo maps.
   B. Access Roads – refer to Topo maps "A" and "B".
   C. Access Roads within a one-mile radius – refer to Topo map "B".
   D. The existing roads will be maintained in the same or better condition as existed prior to the commencement of operations and said maintenance will continue until final abandonment and reclamation of the well location. Excessive rutting or other surface disturbance will be avoided. Operations will be suspended temporarily during adverse weather conditions if excessive rutting is occurring when access routes are wet, soft, or partially frozen.

2. **PLANNED ACCESS ROAD**
   All proposed access roads are shown on Topo map "B".

   A. Width maximum – 30 feet overall right-of-way with an 18-foot road running surface, crowned and ditched and/or sloped and dipped.
   B. Construction standard – the access road will be constructed to the same standards as previously accepted in this area.

      The road will be constructed to meet the standards of the anticipated traffic flow and all weather requirements. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.

      Prior to construction/upgrading the roadway shall be cleared of any snow cover and allowed to dry completely.

      Traveling off of the thirty (30) foot right-of-way will not be allowed.

      Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be neither designed so they will not cause siltation or the accumulation of debris in the drainage crossing nor shall the drainages be blocked by the roadbed. Diverting water off at frequent intervals by means of cutouts shall prevent erosion of the drainage ditches by runoff water.

      Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they will be filled in and detours around them avoided.

   C. Maximum grade – the average grade will be 10% or less, wherever possible. The 10% grade will only be exceeded in areas where physical terrain or unusual circumstances require it.

D. Drainage design – the access road will be crowned and ditched or sloped and dipped, and water turnouts installed as necessary to provide proper drainage along the access road route.
E. Turnouts will be constructed along the access route as necessary or required to allow for the safe passage of traffic.
F. Culverts – none will be required unless otherwise specified during the onsite inspection.
G. Surface materials – surfacing materials will consist of native soil. If any additional surfacing materials are required they will be purchased from a local contractor having a permitted source of materials in the area. None are anticipated at this time.
H. Gates, cattle guards or fence cuts – none required unless specified during the onsite inspection.
I. Road maintenance – during both the drilling and production phase of operations, the road surface and shoulders will be kept in a safe and legal condition and will be maintained in accordance with the original construction standards. The access road right-of-way will be kept free of trash during operations.
J. The proposed access road has been centerline flagged.
K. Dust will be controlled on the roads and locations during construction and drilling by periodic watering of the roads and locations.

3. **LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS**
Please refer to Topo Map "C".

4. **LOCATION OF EXISTING AND/OR PROPOSED FACILITIES**

A. At each drill location, surface disturbance will be kept to a minimum. Each drill pad will be leveled using cut and fill construction techniques as noted in the attached survey.
B. Should drilling result in established commercial production the following will be shown:
    1. Proposed location and attendant lines, by flagging, if off well pad.
    2. Dimensions of facilities.
    3. Construction methods and materials.
    4. Protective measures and devices to protect livestock and wildlife.
    5. All buried pipelines will be buried to a depth of 4 feet from ground surface to top of pipe.
    6. Construction width of the right-of-way/pipeline route shall be restricted to 60 feet of disturbance.
    7. Pipeline location warning signs shall be installed within 90 days after construction is completed.
    8. EnCana shall condition pipeline right-of-ways in a manner to preclude vehicular travel upon said rights-of-way, except for access to pipeline drips and valves.
    9. Pipeline right-of-way requested on the APD will be for 60' working surface during construction with 30' rehabilitated after construction is complete. In the event production is established this well will be tied-in to

an existing pipeline as shown in Topo map "D". The area used to contain the proposed production facilities will be built using native materials. If these materials are not acceptable, arrangements will be made to acquire appropriate materials from private sources.

10. A dike will be constructed completely around any production facilities which contain fluids (i.e. production tanks, produced water tanks, etc.) These dikes will be constructed of compacted subsoil, be impervious, hole 110% of the capacity of the largest tank, and be independent of the back cut.
11. All permanent (onsite for six months or longer) above-the-ground constructed or installed, including pumping units, will be painted a flat non-reflective, earthtone color to match one of the standard environmental colors as determined by the five State Rocky Mountain Interagency committee. All production facilities will be painted within six months of installation. Facilities that are required to comply with Occupation Health and Safety Act Rules and Regulations will be excluded from this painting requirement.
12. The production (emergency) pit will be 8 feet in diameter and 8 feet deep. It will be lined with corrugated steel with a steel mesh cover.
13. If different production facilities are required, a sundry notice will be submitted.

C. EnCana Oil & Gas (USA) Inc. shall protect all survey monuments, witness corners, reference monuments and bearing trees in the affected areas against disturbance during construction, operation, maintenance and termination of the facilities authorized herein.

   EnCana Oil & Gas (USA) Inc. shall immediately notify the authorized officer in the event that any corners, monuments or markers are disturbed or are anticipated to be disturbed. If any monuments, corner or accessories are destroyed, obliterated or damaged during construction, operation or maintenance, EnCana shall secure the services of a Registered Land Surveyor to restore the disturbed monuments, corner or accessories, at the same location, using surveying procedures found in the Manual of surveying Instructions for the Survey of the public Lands of the United States, latest edition. EnCana shall ensure that the Registered Land Surveyor properly records the survey in compliance with the Colorado Revised Statues 38-53-101 through 38-53-112 (1973) and shall send a copy to the authorized officer.

D. During drilling and subsequent operations, all equipment and vehicles will be confined to the access road right-of-way and any additional areas as specified in the approved Application for Permit to Drill.
E. Reclamation of disturbed areas no longer needed for operation will be accomplished by grading, leveling and seeding as recommended by the Bureau of Land Management.

EnCana Oil & Gas (USA) Inc. will be responsible for road maintenance from the beginning to completion of operations.

5. LOCATION AND TYPE OF WATER SUPPLY

A. Water to be used for the drilling of these wells will be hauled by truck over the roads described in item #1 and item #2, from the nearest water supply. Water volume used in drilling operation is dependent upon the depth of the well and any losses that might occur during drilling.

6. **SOURCE OF CONSTRUCTION MATERIALS**

A. All access roads crossing Federal land are described under Item #2, and shown on Map "A".
All construction material for these location sites and access roads shall be borrowed material accumulated during the construction of the location sites and access roads. No additional construction material from other sources is anticipated at this time. If in the future it is required, the appropriate actions will be taken to acquire it from private sources.

B. All trees on the locations, access road, and proposed pipeline routes shall be disposed of by one of the following methods:
   1. Trees shall be cut with a maximum stump height of six inches (6") and cut to 4-foot lengths and stacked off location. Trees will not be dozed off the location or access road, except on private surface where trees may be dozed. Trees may also be dozed on pipeline routes and then pulled back onto right-of-way as part of final reclamation.
   2. Limbs may be scattered off location, access road or along the pipeline, but not dozed off.

Rootballs shall be buried or placed off location, access road, or pipeline route to be scattered back over the disturbed area as part of the final reclamation.

7. METHODS OF HANDLING WASTE MATERIALS

A. Cutting will be deposited in the reserve/blooie pit.

B. Drilling fluids including salts and chemicals will be contained in the reserve/blooie pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within ninety (90) days after termination of drilling and completion activities.

In the event that adverse weather conditions prevent removal of the fluids from the reserve pit within this time period, an extension may be granted by the Authorized Officer upon receipt of a written request from EnCana Oil & Gas (USA) Inc. The reserve pit will be constructed so as not to leak, break or allow discharge.

C. Produced fluids – liquid hydrocarbons produced during completion operations will be placed in test tanks on the location. Produced wastewater will be confined

to a lined pit (reserve pit) or storage tank for a period not to exceed ninety (90) days after initial production. During the permanent disposal method and location, along with the required water analysis shall be submitted for the Authorized Officer's approval. Failure to file an application within the time frame allowed will be considered an incidence of noncompliance.

D. Sewage- self-contained, chemical toilets will be provided for human waste disposal. Upon completion of operations, or as needed, the toilet holding tanks will be pumped and the contents thereof disposed of in the nearest, approved, sewage disposal facility.
E. Garbage and other waste material – garbage, trash and other waste materials will be collected in a portable, self-contained and fully – enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at an authorized sanitary landfill. No trash will be burned on location or placed in the reserve pit.
F. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the well location. No adverse materials will be left on the location. Any open pits will be maintained until such time as the pits are backfilled.
G. The reserve and/or production pit will be constructed on the existing location and will not be located in natural drainages where a flood hazard exists or surface runoff will destroy or damage the pit walls. All pits will be constructed so as not to leak, break, or allow the discharge of liquids there from.
H. Any spills of oil, gas, salt water or other potentially hazardous substances will be reported immediately to the BLM, and other responsible parties, and will be mitigated immediately, as appropriate, through clean up or removal to an approved disposal site.

8. ANCILLARY FACILITIES

Self-contained travel-type trailers may be used on site during drilling operations. Standard drilling operation equipment to be on location will include: drilling rig with associated equipment; living facilities for company representative, tool pusher, mud logger, directional driller; toilet facilities and trash containers.

Facilities other than those described in this surface use plan to support drilling operations will be submitted to the Authorized Officer via a sundry notice (form 3160-5) for approval prior to commencing operations.

WELLSITE LAYOUT

A. The attached location plat specifies the drill site layout as staked. Cross sections have been drafted to visualize the planned cuts and fills across the location. An average minimum of six (6) inches of topsoil will be stripped from the location (including the areas of cut, fill and/or subsoil storage) and stockpiled for future reclamation of the well site. The stockpiled soil will be seeded within 48 of completion of the pad.
B. A production schematic showing the proposed production facility layout is attached.

C. The reserve pit and blooie pit will be constructed as a combination pit capable of holding approximately four times the TD hole volume. The pits were combined, as these are gas wells and there will be no danger of the accumulation of hydrocarbons that could result in a potential safety hazard. The blooie pit might be used for testing, but only after the drilling is completed and the drilling equipment and personnel are off the well site location. In the event that drilling fluid (mud) will have to be used then this pit will also serve as the reserve pit. The reserve pit will be lined to prevent seepage.

   This requirement may be waived by the Bureau of Land Management upon receipt of additional information from EnCana Oil & Gas (USA) Inc. concerning the location of fresh water aquifers and potential flow rates, chemical analyses of waters from the aquifers, and information concerning both the mechanics and nature of the air mist drilling system including any additives used therein.

D. Prior to the commencement of drilling operations, the reserve pit will be fenced on three (3) sides using three strands of barbed wire according to the following minimum standards:
   1. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
   2. Standard steel, wood, or pipe posts shall be used between the corner braces. The maximum distance between any two (2) posts shall be no greater than sixteen (16) feet.
   3. All wire shall be stretched using a stretching device before it is attached to the corner posts.

   The fourth side of the reserve pit will be fenced immediately upon removal of the drilling rig and the fencing will be maintained until the pit is backfilled.

E. Any hydrocarbons on the pit will be removed from the pit as soon as possible after drilling operations are completed.

F. Operator will notify the Authorized Officer at least three (3) working days prior to construction of the well pad and/or related facilities and within two (2) working days after completion of the well pad.

9. PLANS FOR RECLAMATION OF THE SURFACE:

The BLM will be contacted prior to commencement of any reclamation operations.

A. Production
   1. Immediately upon well completion, the well location and surrounding areas(s) will be cleared of all debris, materials, trash and junk not required for production.
   2. Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43CFR 3162.7-1.
   3. Before any dirt work to restore the location takes place, the reserve pit will be completely dry and all cans, barrels, pipe, etc. will be removed.

Other waste and spoil materials will be disposed of immediately upon completion of drilling and workover activities.

4. The reserve pit and that portion of the location and access road not needed for production facility/operations will be reclaimed within ninety (90) days from the date of well completion, weather permitting.
5. If the well is a producer, EnCana will upgrade and maintain access roads as necessary to prevent soil erosion, and accommodate year round traffic. Areas unnecessary to operations will have areas reshaped. Topsoil will be redistributed and disked. All areas outside the work area will be re-seeded according to the Bureau of Land Management recommendations for seed mixture.
6. If the well is abandoned or a dry hole, EnCana will restore the access road and location to approximately the original contours. During reclamation of the site, fill material will be pushed into cuts and up over the backslope. No depressions will be left that will trap water or form ponds. Topsoil will be distributed evenly over the location and seeded according to the recommended seed mixture. The access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.

   Seedbed will be prepared by disking then roller packing following the natural contours. Seed will be drilled on contours at a depth no greater than one-half inch (1/2). In areas that cannot be drilled, seed will be broadcast at double the seeding rate and harrowed into soil. Certified seed will be used whenever available.

   Fall seeding will completed after September 1, and prior to prolonged ground frost. To be effective, spring seeding will be completed after the frost has left the ground and prior to May 15th.

7. Upon completion of backfilling, leveling and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed areas(s). Prior to reseeding, all disturbed surfaces will be scarified and left with a rough surface. No depressions will be left that would trap water and form ponds. All disturbed surfaces will be re-seeded with a seed mixture to be recommended by the BLM.

   Seed will be drilled on the contour to approximately a depth of one-half (1/2) inch. All seeding will be conducted after September 1 and prior to ground frost. Spring seeding will be done after the frost leaves the ground and no later than May 15th. If the seeding is unsuccessful, EnCana may be required to make subsequent seedings.

B. DRY HOLE/ABANDONED LOCATIONS

A. On lands administered by the BLM, abandoned well sites, roads or other disturbed areas will be restored to near their original condition.

This procedure will include:

1. Re-establishing irrigation systems where applicable,
2. Re-establishing soil conditions in irrigated field in such a way as to ensure cultivation and harvesting of crops and,
3. Ensuring revegetation of the disturbed areas to the specification of the BLM at the time of abandonment.

B. All disturbed surfaces will be recontoured to the approximate natural contours and re-seeded according to BLM specifications. Reclamation of the well pad and access road will be performed as soon as practical after final abandonment and reseeding operations will be performed in the fall or spring following completion of reclamation operations.

10. SURFACE OWNERSHIP

Surface ownership may be either Fee or Federal and is noted on the APD.

11. OTHER INFORMATION

a. A Class III Cultural Resource Inventory of the proposed drill sites, access roads and other facilities on Federal lands will be conducted and a report filed with the appropriate BLM office.
b. If archaeological, historical or vertebrate fossil materials are discovered during the course of any construction activities, EnCana will suspend all operations that further disturb such materials and immediately contact the appropriate BLM office. Operations in the area of discovery will not resume until written authorization to proceed has been issued by the BLM Authorized Officer (AO).
c. EnCana will be fully responsible for the actions of their subcontractors. A copy of the approved APD and Conditions of Approval will be on location during drilling and completion operations.
d. Any construction activity in the areas shall be done with awareness that many natural gas pipelines are buried. Some are apparent as to location; some have grown over with weeds and brush. It is suggested that the contractor contact the operators in the area to locate all lines before digging.

12. REPRESENTATIVES AND CERTIFICATION

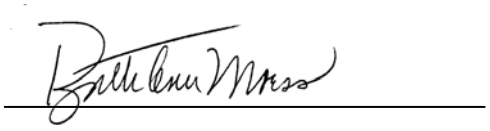
A. Representative:
RuthAnn Morss
EnCana Oil & Gas (USA) Inc.
370 17th Street, Suite 1700
Denver, CO 80202
(720)-876-5060

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved Application for Permit to Drill will be furnished to the field representatives to ensure compliance and shall be on location during all construction and drilling operations.

B. Representative Certification:

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, and I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors conformity with this plan and the terms and conditions under which is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.



RuthAnn Morss
EnCana Oil & Gas (USA) Inc.
(720) 876-5060
June 24, 2005

10-POINT DRILLING PLAN – Gant Gulch GAP

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43CFR3100), Onshore Oil and Gas Orders No. 1 and No. 2 and the approved Plan of Operations. The Operator is fully responsible for the actions of its subcontractors. A copy of the Conditions of Approval will be furnished to the field representatives to ensure compliance.

EnCana Oil & Gas (USA) Inc. will be operating under its Nationwide Bond # RLB0004733.

1. **Estimated Tops of Important Geologic Markers**
   a. Formations and depths will be submitted with the site specific APD.

2. **Estimated Depths of Anticipated Water, Oil Gas or Mineral Formations**
   a. The proposed casing and cementing program has been designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use.

      The surface casing shall be cemented back to surface either during the primary cement job or by remedial cementing.

      Please see attached map exhibit provided by Operator's third party contractor which identifies known domestic water wells, depths, and independent definition of known useable water in the Gant Gulch Area. Operator's domestic water well testing procedures are also stated on this exhibit.

3. **Pressure Control Equipment**
   a. Minimum working pressure on rams and BOPE will be 3,000 psi.
   b. Function test and visual inspection of the BOP will be conducted daily and noted in the IADC Daily Drilling Report.
   c. Both high and low pressure tests of the BOPE will be conducted.
   d. The Annular BOP will be pressure tested to a minimum of 50% of its rated working pressure.
   e. Blind and Pipe Rams/BOP will be tested to a minimum of 100% of rated working pressure (against a test plug)
   f. BOP testing procedures and testing frequency will conform to Onshore Order No. 2.
   g. BOP remote controls shall be located on the rig floor at a location readily accessible to the driller. Master controls shall be on the ground at the accumulator and shall have the capability to function all preventors.
   h. The kill line shall be 2" minimum and contain two kill line valves, one of which shall be a check valve.
   i. The choke line shall be 3" minimum and contain two choke line valves (3" minimum).
   j. The choke and manifold shall contain two adjustable chokes.

Casing	Depth	Hole Size	Size	Weight	Grade	Cement Volume
Conductor	0-40'	± 24" or ± 30"	16" or 20"	0.25" Wall	X42	± 5 yds ready mix (as required to cement to surface)
Surface	Surface to ±70' 1200' - 1500'	12 1/4"	9 5/8" xo to 8 5/8"	36# 24#	J-55, STC All New	± 850 sks to ± 1060sks Class (G) 15.8ppg 1.17 ft^3/sx
Production	0' - 4000' and 4000' - TD	7 7/8"	4 ½"	11.6#	P110, LTC and I80, LTC All New	Lead: ± 500 sacks, 12.0 – 12.5 ppg Yield: ± 1.35 cu ft / ft Tail: ± 750 sacks, 13.0 13.5 ppg Yield: ± 1.27 cu ft / ft

k. Hand wheels shall be installed on all ram preventors.
l. Safety valves and wrenches (with subs for all drill string connections) shall be available on the rig floor at all times.
m. Inside BOP or float sub shall also be available on the rig floor at all times.
n. Upper Kelly cock valve (with handle) shall be available at all times.

Proposed BOP and Choke Manifold arrangements are attached.

4. Proposed Casing and Cementing Program

a. The specific casing setting depths will vary depending on well location and drilling conditions. The depths listed in the table give the approximate anticipated setting depth.
b. The production casing design cement volumes will be based on the tail slurry having a height designed for 1000' above the geologist "top of gas" pick, and the lead slurry having a height designed to a minimum cement top which is 200' > top of the Mesa Verde formation.
c. Unless otherwise stated, the cement volume excess for surface casing cement slurries will be 100% for any slurry design.
d. Unless otherwise stated, the minimum cement volume excess for production casing cement slurries will be:
    a. Lead Slurry: 50% excess without open hole caliper log and 10% with caliper log.
    b. Tail Slurry: 30% excess without open hole caliper log and 10% with caliper log.
e. The proposed casing and cementing program shall be conducted as approved to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. Determination of casing setting depth shall be based on all relevant factors, including: presence/absence of hydrocarbons, fracture gradients, usable water zones, formation pressures, lost circulation zones, other minerals or other unusual characteristics.
f. All casing, except conductor casing, shall be new or reconditioned and tested. Approval will be obtained from the Authorized Officer prior to using reconditioned casing. Used casing shall meet or exceed API standards for new casing.

g. The surface casing shall be cemented back to surface either during the primary cement job or by remedial cementing. Cement volumes based on 100% excess above annular volume; or as required based on field experience to ensure cement is circulated to surface. If drive pipe is used, it may be left in place its total length is less than twenty feet below the surface. If the total length of the drive pipe is equal to or greater than twenty feet, it will be pulled prior to cementing surface casing, or it will be cemented in place.
h. Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.
i. Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a suitable pre-flush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud being displaced ahead of the cement slurry.
j. All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or to 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield. If pressure declines more than 10% in 30 minutes, corrective action shall be taken.
k. Casing design is subject to revision based on geologic conditions encountered.

5. Proposed Casing and Cementing Programs:

Casing Programs will be adjusted as necessary to maintain minimum design criteria – based on Operator's internal design assumptions.

a. Surface casing @ 1500' MD; 8-5/8" 24# J-55 STC
Purpose: Protect shallow fresh water and contain MASP to TD

Maximum anticipated mud weight at surface casing depth:	= 9.0 ppg
Maximum anticipated mud weight at TD:	= 10.0 ppg
Maximum anticipated equivalent formation pressure at TD	= 9.5 ppg

Collapse Design:
Evacuated 8-5/8" 24# J-55casing with 9.0 ppg drilling fluid density:

Load = 9.0*0.052*1500'	= 702 psig
Rating:	= 1370
S.F.	= 1.9
Minimum Design Criteria	= 1.0

Burst Design: Assume kick with partially evacuated hole and an influx gradient of 0.22 psi/ft.
8-5/8" 24# J-55

MASP (Load) = 8500'*(0.494-0.22) psi/ft	= 2329 psig
Rating:	= 2950 psig
S.F.	= 1.26
Minimum Design Criteria	= 1.1

Tensile Design: Designed on Air Weight * Buoyancy + overpull margin
8-5/8" 24# J-55

Rating:	= 372,000 lbs
Load: 1500'*24#*0.847+100,000 lbs (OPM)	= 130,492 lbs
S.F.	= 2.85
Minimum Design Criteria	= 1.2

b. Production Casing @ 8500' MD; 4-1/2",11.6#, I80, LTC

Maximum Anticipated Mud Weight at Total Depth	= 10.0 ppg
Maximum Anticipated Equivalent Formation Pressure at Total Depth	= 9.5 ppg
Maximum Surface Treating Pressure for Fracturing Operations	= 7000 psig
Assumed Gas Gradient for Production Operations	= 0.115 psi/ft

Collapse Design: Designed on evacuated casing properties with 10.0 ppg drilling fluid density with no internal back-up.

Load = 10.0*0.052*8500'	= 4420 psig
Rating	= 6350 psig
S.F.	= 1.43
Minimum Design Criteria	= 1.0

Burst Design: Assume maximum surface shut-in pressure during production, and maximum surface treating pressure during fracture stimulation operations.

Design Consideration #1: Maximum Surface Shut-In Pressure
Design Point #1: 4-1/2" 11.6#, I-80 from 0' to 8500'

MASSIP (Load) = 8500'*(0.494-0.115) psi/ft	= 3222 psig
Rating	= 7780 psig
S.F.	= 2.41
Minimum Design Criteria	= 1.1

Design Consideration #2: Maximum Surface Treating Pressure During Frac Operations
Design Point #1: 4-1/2" 11.6# I-80 from 0' to 8500'

MATP (Load):	= 7000 psig
Rating:	= 7780 psig
S.F.	= 1.11
Minimum Design Criteria	= 1.1

Tensile Design: Designed on Air Weight * Buoyancy + overpull margin

Load = (8500'*11.6 lb/ft*0.847) + 75,000 lbs (OPM)	= 158,514lbs
Rating	= 212,000 lbs
S.F.	= 1.33
Minimum Design Criteria	= 1.2

*Cementing Volume Design Clarification:

Surface Casing @ 1200' to 1500':

*Cement designed to cover the entire string with 100% excess.

Production Casing

*Designed to 200' above top of Mesa Verde formation. Volume assumes 7-7/8" gauge hole diameter plus 30-50% excess based on Operator's experience with offset wells.
*If open-hole logs are run, cement volumes will be determined from the caliper plus 10% excess.

6. Directional Drilling Program

An S-shaped directional design will be used to reach the targeted bottom hole locations. In general, a target radius of 200' will be used. Specific directional plans for each well will be included with the APD.

7. Proposed Drilling Fluids Program

DEPTH	*MUD TYPE*	DENSITY Lb/gal	VISCOSITY (sec/qt)	FLUID LOSS (cc)
0' – 1500'	Fresh Water Gel	8.4 - 9.0	28 – 35	NC
1500' – TD	LSND	8.8 – 9.0	35 – 45	5 - 15 cc

a. The drilling fluids have been designed for optimal wellbore hydraulics and hole stability.
b. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers.

8. Testing, Coring and Logging

a. Drill Stem Testing – none anticipated
b. Coring – As deemed necessary by geology
c. Mud Logging – Optional
d. Logging:

Logging Statement: It is Operator's intent to run one open hole log per pad drilled on both surface and production holes, unless the hole conditions warrant otherwise. In such cases of unstable hole conditions, Operator will seek a waiver on open hole logging from the BLM authorized office.

Open Hole	Logging Interval
PEX (Optional)	AIT-GR-Neutron/Litho-Density From TD to surface casing

Cased Hole	Logging interval
CBL/CCL/GR/VDL	As needed for perforating control
RST	In lieu of PEX

9. Air/Mist Drilling

The following equipment will be in place and operational during air/gas drilling:

- Properly lubricated and maintained rotating head
- Spark arrestor on engines or water cooled exhaust
- Blooie line discharge 100 feet from well bore and securely anchored
- Straight run on blooie line
- De-duster equipment
- All cuttings and circulating medium shall be directed into a reserve or blooie pit
- Float valve above bit
- Automatic igniter or continuous pilot light on the blooie line
- Compressors will be located in the opposite direction from the blooie line a minimum of 100 feet from the wellbore
- Mud circulating equipment, water, and mud materials sufficient to maintain the capacity of the hole and circulating tanks or pits

10. Abnormal Pressures or Temperature

a. The Gant Gulch GAP area is generally normal to slightly over-pressured. Lost circulation is most commonly experienced while drilling the normally pressured Wasatch hole section. Barite and a selection of "sized" lost circulation materials will be kept on location during drilling operations.

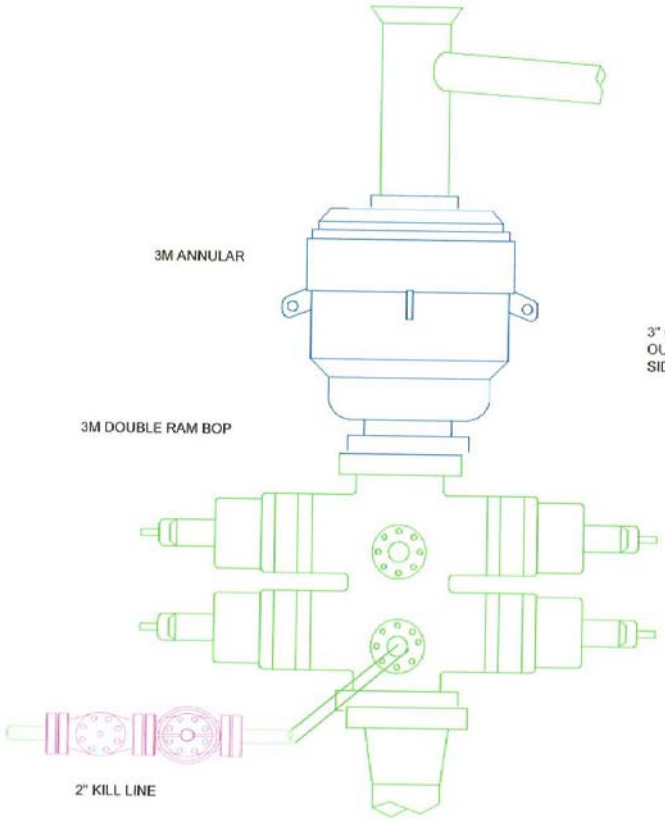
MASP Calculation: Will be performed as follows for individual well depths and as determined by offset well control. Example for 8500' TVD well:

The anticipated bottom hole pressure is 8500*0.494 psi/ft = 4199 psi
The maximum anticipated surface pressure is 8500*(0.494-0.22) psi/ft = 2329 psi

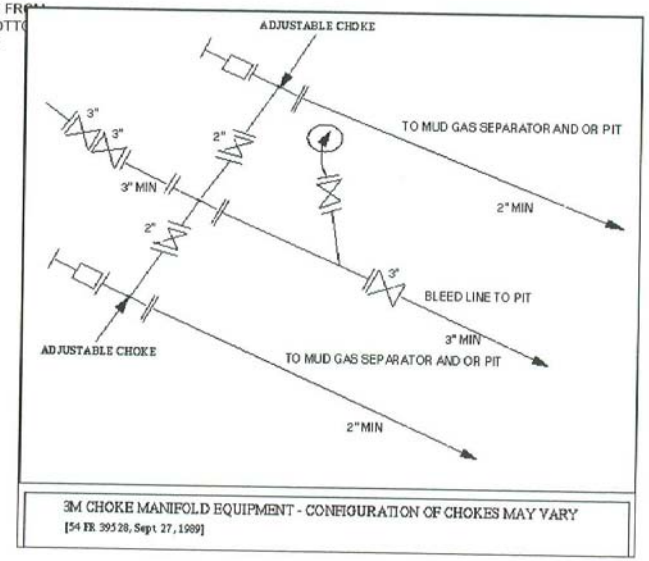
b. No hydrogen sulfide has been encountered or is known to exist from previous drilling in the area at this depth.

11. Anticipated Start Date and Duration of Operations

Drilling operations are expected to require ± 18 days on each well. Completion operations are anticipated to begin within 15 days of finishing the drilling portion of the last well on each pad. Completion operations will require approximately 30 days. Total time on a typical 4-well pad would therefore be ± 120 days.



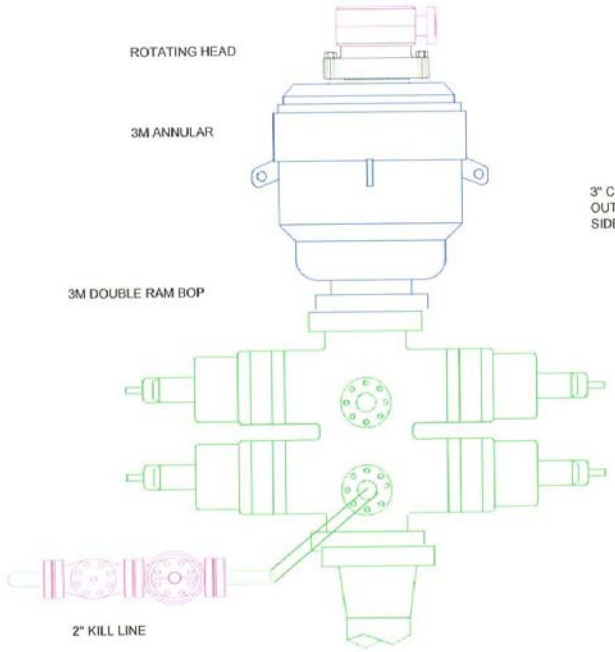
3" CHOKE LINE FR
OUTLET ON BOTT
SIDE OF RAMS



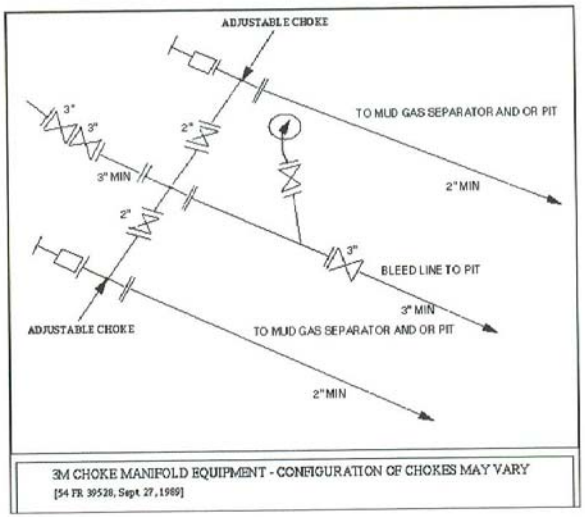
3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY
[54 FR 39528, Sept. 27, 1989]

3M BOP.xls

ATTACHMENT A



3" CHOKE LINE FROM OUTLET ON BOTTOM SIDE OF RAMS



3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY
[54 FR 39528, Sept. 27, 1989]

3M BOP w Rot Head.xls

ATTACHMENT B

Table 1-1. Bottom-hole Locations of Wells in Gant Gulch GAP.

Surface Lease Number	Sec-Twp-Rge Surface Location	Pad & Surface Location	Well Number: Bottom Hole Location	Bottom Hole Lease Number	Surf Owner/ Min Owner
FEE	1-T8S-R93W	C36W	1-2: 660' FNL & 1980' FEL	C-55605	FEE/FED
			1-3: 660' FNL & 1980' FWL	C-55605	FEE/FED
			1-4: 660' FNL & 660' FWL	C-55605	FEE/FED
			36-13C: 10' FSL & 4620' FEL	C-52889	FEE/FED
			36-14C: 10' FSL & 3300' FEL	C-52889	FEE/FED
			36-15C: 10' FSL & 1980' FEL	C-52889	FEE/FED
			36-13: 660' FSL & 4620' FEL	C-52889	FEE/FED
			36-14: 660' FSL & 3300' FEL	C-52889	FEE/FED
			36-15: 660' FSL & 1980' FEL	C-52889	FEE/FED
			25-15C: 100' FSL & 1980' FEL	FEE	FEE/FEE
			25-14C: 100' FSL & 3300' FEL	FEE	FEE/FEE
			36-10C: 1320' FSL & 1980' FEL	FEE	FEE/FEE
			36-11C: 1320' FSL & 3300' FEL	FEE	FEE/FEE
C-54738	25-T7S-R93W	D25W	25-3: 660' FNL & 1980' FWL	C-54738	FED/FED
			25-3B: 1320' FNL & 1980' FWL	C-54738	FED/FED
			24-4: 660' FNL & 660' FWL	C-54738	FED/FED
			25-4C: 1320' FNL & 660' FWL	C-54738	FED/FED
			25-5: 1980' FNL & 660' FWL	C-54738	FED/FED
			26-1: 660' FNL & 660' FEL	C-54738	FED/FED
			26-8: 1980' FNL & 660' FEL	C-54738	FED/FED
			26-1C: 1320' FNL & 660' FEL	C-54738	FED/FED
			23-16: 660' FSL & 660' FEL	FEE	FEE/FEE
			23-16C: 100' FSL & 660' FEL	FEE	FEE/FEE
C-55605	2-T8S-R93W	D2SW	2-2: 660' FNL & 1980' FEL	C-55605	FED/FED
			2-3: 660' FNL & 1980' FWL	C-55605	FED/FED
			2-4: 660' FNL & 660' FWL	C-55605	FED/FED
C-54738	26-T7S-R93W	F26W	26-7: 1980' FNL & 1980' FEL	C-54738	FED/FED
			26-6: 1980' FNL & 1980' FWL	C-54738	FED/FED
			26-10: 1980' FSL & 1980' FEL	C-54738	FED/FED
FEE	1-T8S-R93W	G1SW – EXISTING PAD	1-1: 660' FNL & 660' FEL	FEE	FEE/FEE
			1-1C: 1320' FNL & 660' FEL	FEE	FEE/FEE
			1-2C: 1320' FNL & 1980' FEL	C-55605	FED/FED
			1-3C: 1320' FNL & 3300' FEL	C-55605	FED/FED
			1-8: 1980' FNL & 660' FEL	FEE	FEE/FEE
			1-8C: 2640' FNL & 660' FEL	FEE	FEE/FEE
			1-9: 3300' FNL & 660' FEL	FEE	FEE/FEE
			1-10B: 2640' FNL & 1980' FEL	FEE	FEE/FEE
			1-10: 3300' FNL & 1980' FEL	FEE	FEE/FEE
C-55605	2-T8S-R93W	H2SW	1-4C: 1320' FNL & 660' FWL	C-55605	FED/FED
			1-5C: 2640' FNL & 660' FWL	C-55605	FED/FED
			2-8C: 2640' FNL & 660' FEL	C-55605	FED/FED
			2-7: 1980' FNL & 1980' FEL	C-55605	FED/FED
C-54738	27-T8S-R93W	I27W	26-5: 1980' FNL & 660' FWL	C-54738	FED/FED
			26-12: 1980' FSL & 660' FWL	C-54738	FED/FED
C-55605	2-T8S-R93W	I2SW	1-11: 3300' FNL & 1980' FWL	C-55605	FED/FED
			1-12C: 3300' FSL & 660' FWL	C-55605	FED/FED
C-51156	6-T8S-R92W	J6SE	6-11: 1980' FSL & 3300' FEL	C-51156	FED/FED
			6-10: 1980' FSL & 1980' FEL	C-51156	FED/FED
			6-6: 3300' FSL & 3300' FEL	C-51156	FED/FED
			6-6C: 2640' FSL & 3300' FEL	C-51156	FED/FED
FEE	19-T7S-R92W	K19E	24-8: 1320' FNL & 660' FEL	FEE	FEE/FEE
			24-8C: 1980' FNL & 660' FEL	FEE	FEE/FEE
			24-9: 1980' FSL & 660' FEL	FEE	FEE/FEE
			24-9C: 1320' FSL & 660' FEL	FEE	FEE/FEE
			24-16: 660' FSL & 660' FEL	FEE	FEE/FEE
			24-16D: 50' FSL & 50' FEL	FEE	FEE/FEE
			19-11: 1980' FSL & 660' FWL	C-56258	SPLIT
			19-11D: 1320' FSL & 660' FWL	C-56258	SPLIT
			19-14: 660' FSL & 660' FWL	C-56258	SPLIT

Surface Lease Number	Sec-Twp-Rge Surface Location	Pad & Surface Location	Well Number: Bottom Hole Location	Bottom Hole Lease Number	Surf Owner/ Min Owner
			19-14C: 50’ FSL & 660’ FWL	C-56258	SPLIT
C-55605	2-T8S-R93W	K2SW	2-10C: 2940’ FSL & 1980’ FEL	C-55605	FED/FED
			2-11: 3300’ FNL & 1980’ FWL	C-55605	FED/FED
			2-12C: 2940’ FSL & 660’ FWL	C-55605	FED/FED
C-52889	23-T7S-R93W	M23W	23-13: 660’ FSL & 660’ FWL	C-52889	FED/FED
			26-4: 660’ FNL & 660’ FWL	C-52889	FED/FED
C-54738	24-T7S-R93W	M24W	24-11C: 1320’ FSL & 1980’ FWL	C-54738	FED/FED
			24-15: 660’ FSL & 1980’ FEL	FEE	FED/FEE
			24-10C: 1320’ FSL & 1980’ FEL	FEE	FED/FEE
			24-12: 1980’ FSL & 660’ FWL	FEE	FED/FEE
			24-12C: 1320’ FSL & 660’ FWL	C-54738	FED/FED
			24-13: 660’ FSL & 660’ FWL	C-54738	FED/FED
			24-13C: 10’ FSL & 660’ FWL	C-54738	FED/FED
			24-14: 660’ FSL & 1980’ FWL	C-54738	FED/FED
			24-14C: 10’ FSL & 1980’ FWL	C-54738	FED/FED
C-52889	23-T7S-R93W	N23W	23-15: 660’ FSL & 1980’ FEL	C-52889	FED/FED
			23-10: 1980’ FSL & 1980’ FEL	C-52889	FED/FED
			23-11A: 1980’ FSL & 1980’ FWL	C-52889	FED/FED
			23-11D: 1320’ FSL & 1980’ FWL	C-52889	FED/FED
			23-10C: 1320’ FSL & 1980’ FEL	C-52889	FED/FED
			23-14: 660’ FSL & 1980’ FWL	C-52889	FED/FED
			26-2: 660’ FNL & 1980’ FEL	C-54738	FED/FED
			26-3: 660’ FNL & 1980’ FWL	C-54738	FED/FED
C-54738	26-T7S-R93W	N26W	26-14: 660’ FSL & 1980’ FWL	C-54738	FED/FED
			26-15: 660’ FSL & 1980’ FEL	C-54738	FED/FED
			35-10C: 1320’ FSL & 1980’ FEL	C-52889	FED/FED
FEE	31-T8S-R92W	O31E	6-3C: 3960’ FSL & 3300’ FEL	C-51156	FEE/FED
			31-14: 800’ FSL & 3300’ FEL	FEE	FEE/FEE
			31-15: 800’ FSL & 1980’ FEL	FEE	FEE/FEE
			6-3C: 4620’ FSL & 3300’ FEL	C-51156	FEE/FED
FEE	26-T7S-R93W	P26W	25-13C: 10’ FSL & 660’ FWL	C-52889	FEE/FED
			26-9: 1980’ FSL & 660’ FEL	FEE	FEE/FEE
			26-16: 660’ FSL & 660’ FEL	FEE	FEE/FEE
			35-9C: 1320’ FSL & 660’ FEL	C-53889	FEE/FED
			36-12C: 1320’ FSL & 4620’ FEL	C-52889	FEE/FED
C-54738	27-T7S-R93W	P27W	26-13: 660’ FSL & 660’ FWL	C-54738	FED/FED
			27-16: 660’ FSL & 660’ FEL	C-54738	FED/FED
			35-12C: 1320’ FSL & 4620’ FEL	C-54738	FED/FED

APPENDIX B

STANDARD CONDITIONS OF APPROVAL (COA)
GANT GULCH GAP

STANDARD CONDITIONS OF APPROVAL FOR THE GANT GULCH GAP

Air Quality:
The operator is responsible for applying dust abatement measures as needed or directed by the Authorized Officer to reduce the emissions of fugitive dust from access roads. The level and type of treatment (watering or application of various dust agents, surfactants and road surfacing material) may be changed in intensity and must be approved by the Authorized Officer. Dust control is needed to prevent heavy plumes of dust from road use that create safety problems and disperses heavy amounts of particulate matter on adjacent vegetation.

Speed control measures on all project-related unpaved roads would also be implemented to reduce vehicle fugitive dust.

Cultural Resource Inventory:
Class III cultural resource inventories will be required on any and all new wells, access roads, pipelines and other ground disturbing activities not covered in this plan that require a federal permit or authorization to conduct the action. Additional action specific mitigation may be required – including but not limited to moving the location, archeological monitoring, testing, or data recovery

Cultural Resource Education/Discovery:
All persons in the area who are associated with this project must be informed that if anyone is found disturbing historic, archaeological, or scientific resources, including collecting artifacts, the person or persons will be subject to prosecution.

Pursuant to 43CFR10.4(g), the BLM authorized officer must be notified, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43CFR10.4 (c) and (d), activities must stop in the vicinity of the discovery and the discovery must be protected for 30 days or until notified to proceed by the authorized officer.

If in connection with operations under this contract the project proponent, his contractors, subcontractors, or the employees of any of them, discovers, encounters or becomes aware of any objects or sites of cultural or paleontological value or scientific interest such as historic or prehistoric ruins, graves or grave markers, fossils, or artifacts, the proponent shall immediately suspend all operations in the vicinity of the cultural or paleontological resource and shall notify the BLM authorized officer of the findings (16 U.S.C. 470h-3, 36CFR800.112). Operations may resume at the discovery site upon receipt of written instructions and authorization by the authorized officer. Approval to proceed will be based upon evaluation of the resource. Evaluation shall be by a qualified professional selected by the authorized officer from a federal agency insofar as practicable. When not practicable, the holder shall bear the cost of the services of a non-federal professional.

Within five working days the authorized officer will inform the holder as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the holder will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,

- a time frame for the authorized officer to complete an expedited review under 36 CFR 800.11, or any agreements in lieu thereof, to confirm through the State Historic Preservation Officer that the findings of the authorized officer are correct and the mitigation is appropriate.

The proponent may relocate activities to avoid the expense of mitigation and/or the delays associated with this process, as long as the new area has been appropriately cleared of resources and the exposed materials are recorded and stabilized. Otherwise, the proponent will be responsible for mitigation costs. The authorized officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the authorized officer that the required mitigation has been completed, the proponent will then be allowed to resume construction.

Antiquities, historic, prehistoric ruins, or objects of scientific interest that are outside of the authorization boundaries but directly associated with the impacted resource will also be included in this evaluation and/or mitigation.

Antiquities, historic, prehistoric ruins, or objects of scientific interest, identified or unidentified, that are outside of the authorization and not associated with the resource within the authorization will also be protected. Impacts that occur to such resources, which are related to the authorizations activities, will be mitigated at the proponent's cost including Native American consultation cost.

In situations where federal action is required for wells directionally drilled into federal minerals from fee surface overlying fee minerals, BLM's responsibilities under Section 106 of the National Historic Preservation Act [(NHPA) 16 U.S.C. 470] as amended and Section 36 CFR 800.4 will be followed.

Geology:
Mitigation measures for protection of geologic resources are detailed in the GGGAP. These measures include specific procedures for drilling, cementing, and completing the proposed wells to ensure that gas does not migrate into usable water-bearing zones or contaminate other geologic formations. The GGGAP also describes methods for minimizing the potential for slope instability and erosion, and for interim and final reclamation of disturbed surfaces.

Ground Water / Soils:
EnCana will implement aggressive reclamation and re-vegetation of disturbed areas not needed for operational activities. These measures will help prevent erosion and sedimentation to drainages. In addition EnCana will implement multiple BMPs including the following:

New access roads would be crowned and ditched to allow water to flow off the road surface to reduce volume and velocity.

Relief ditches or corrugated metal pipes would be installed at regular intervals to direct drainage off of the road grade and into vegetated areas, where it would infiltrate into the ground and/or sediment would settle out on the surface.

Ditches would be allowed to vegetate and/or would include large rocks or stones to slow the velocity of drainage and allow sediment to settle out.

Where drainage ditches are installed to direct runoff away from the road on steeper grades, water bars or hay bale dikes would be installed nearly perpendicular to the flow direction of the ditch to reduce runoff velocity and settle out.

Straw cover would be placed on excess material piles to help limit heavy dust emissions into the air during weather-created wind events.

EnCana's road construction plans will identify specific locations of drainage features and BMPs for approval by the BLM prior to construction.

Any shallow groundwater zones encountered during drilling of the proposed wells would be properly protected and the presence of these zones reported to the BLM and COGCC.

After the completion of drilling operations, the producing formation would be logged and production casing run and cemented in accordance with the drilling program approved in the APD.

In order to isolate the Mesa Verde -Wasatch contact, production casing on Federal wells will have a cement top a minimum of 200 feet above the top of Mesa Verde formation.

In accordance with EnCana's standard policy, all pits will utilize impermeable liners to contain drilling fluids. Following completion activities, pit liners would be removed at the respective landowners request.

For pads where a reserve pit is planned, EnCana would construct a lined reserve pit to receive the drill cuttings from the wellbore (mainly shale, sand, and miscellaneous rock minerals) and to contain drilling fluids carried over with the cuttings. No hazardous substances would be placed in this pit.

Frac pits to contain water used in completion process will be planned for each new pad location in GAP. Frac pits will also be lined. Compliance with Onshore Order #1 would determine the timing and closure of frac pits. In instances where well drilling would occur in more than 1 drilling season on a pad, the frac pit will be drained dry prior to winter shutdown period or expiration of 90 day period, whichever occurs first. The liner in drained frac pits will be retained until frac pit use is completed.

Invasive Non-Native Species:
EnCana would implement an intensive reclamation and weed control program beginning the first growing season after well completion. All disturbed areas not needed for immediate operation of the wells will be seeded with a mixture of native grasses and shrubs. Site specific seed mixes designed to reclaim the sites and deter establishment of noxious weeds are presented in the vegetation section. The seed shall be certified free of primary or secondary noxious weeds. The operator shall adhere to the specified seed mix and will continue with reclamation activities, including additional reseeding if necessary, until BLM's interim reclamation objectives are achieved.

The operator shall be required to monitor for the presence of noxious weeds, which are included on the State or County noxious weed lists at least once each year during the growing season. The operator shall be responsible for promptly controlling any noxious weed infestations, which have resulted from the operator's construction, operation, or maintenance activities within the Project

Area. A Pesticide Use Proposal must be approved by the Authorized Officer prior to the use of any herbicides.

Given that cheatgrass is common in portions of the Project Area, it may not be possible to totally eliminate this noxious weed from the reclaimed area. In the case of cheatgrass, interim reclamation will be considered acceptable if cheatgrass and other undesirable vegetation are less than five percent cover, if the adjacent vegetation is less than 50 percent undesirables. Cheatgrass will be less than 50 percent cover, if the adjacent vegetation is more than 50 percent undesirables (1999 GSRA Oil and Gas FSEIS).

Migratory Birds:
In order to protect nesting raptors, an annual raptor survey would be conducted prior to any new construction, drilling, or completion activities scheduled between February 1 and August 15. If an active raptor nest is documented within ¼ mile of proposed construction, drilling or completion, the activity could be delayed until the young have fledged or the nest is no longer active, as determined by a qualified wildlife biologist. If lease stipulation does not exist to protect nesting raptors, a 60 day timing limitation or relocation of the well pad/road up to 200 meters would be applied to a ¼ mile buffer around the nest site to minimize disturbance during a portion of the critical nesting period.

Native American Consultation:
The Ute Tribe of the Uinta and Ouray Bands have visited other culturally sensitive sites in the Glenwood Springs Field Office area and have provided written and verbal indication to protect these sites. The following mitigation is based upon this information. If new data are disclosed after the Native Americans visit the Grass Mesa GAP, new terms and conditions may have to be negotiated to accommodate their concerns.

- Site-specific Native American mitigation measures suggested during consultation will be considered during the implementation phase of the proposed action(s).
- Strict adherence to the confidentiality of information concerning the nature and location of archaeological resources will be required of EnCana and their subcontractors (Archaeological Resource Protection Act 16 U.S.C. 470hh).
- Periodic monitoring of these sensitive areas will be required.
- Inadvertent Discovery: The National Historic Preservation Act (NHPA) as amended requires that if newly discovered cultural resources are identified during project implementation, work in that area must stop and the agency Authorized Officer notified immediately (36 CFR 800.13). The Native American Graves Protection and Repatriation Act (NAGPRA), requires that if inadvertent discovery of Native American Remains or Objects occurs, activity must cease in the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice made to the BLM Authorized Officer, as well as the appropriate Native American group(s) (IV.C.2). Notice may be followed by a 30-day delay (NAGPRA Section 3(d)).

Further actions also require compliance under the provisions of NHPA and the Archaeological Resource Protection Act (16 U.S.C. 470hh).

- On private lands, Colorado State Statues (CRS 24-80-401 and CRS 24-80-1301) for Historic, Prehistoric, and Archaeological Resources, and for Unmarked Human Graves will have to be adhered to by EnCana and their subcontractors. These State statutes require that the federal Authorizing Officer be notified immediately of any historic or

prehistoric finds or human grave. The find must be protected until the Authorizing Officer indicates that the action may proceed.

Noise:
During drilling and completion, the operator will angle the exhaust muffler stacks on the power units or generators away from private homes. The operator will encourage commuting of construction and drilling crews to mitigate vehicle noise impacts. EnCana will use telemetry equipment at all gas well meters to reduce the pumper traffic within the GAP area.

Paleontological Resource Education/Discovery:
All persons associated with operations under this authorization must be informed that any objects or sites of paleontological or scientific value, such as vertebrate or scientifically important invertebrate fossils, shall not be damaged, destroyed, removed, moved or disturbed. If in connection with operations under this authorization any of the above resources are encountered the proponent shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM authorized officer of the findings. The discovery must be protected until notified to proceed by the authorized officer.

As feasible, the proponent shall suspend ground-disturbing activities at the discovery site and immediately notify the BLM authorized officer of any finds. The BLM authorized officer will, as soon as feasible, have a BLM-permitted paleontologist check out the find and record and collect it if warranted. If ground-disturbing activities cannot be immediately suspended, the proponent shall work around or set the discovery aside in a safe place to be accessed by the BLM-permitted paleontologist.

Paleontological Resource Monitoring:
If significant fossils resources are encountered, construction activities would be halted and the BLM notified of the occurrence immediately. A qualified paleontologist would then visit the site and make site-specific recommendations for impact avoidance. Operations in the area of the discovery would not resume until authorization to proceed has been received from the BLM Authorized Officer.

Range Management:
EnCana would fence newly reclaimed well pads to exclude livestock and big game grazing pressure on seeded sites.

Range improvements (fences, gates, reservoirs, pipelines, etc.) will be avoided during development of natural gas resources to the maximum extent possible. If range improvements are damaged during exploration and development, the operator will be responsible for repairing or replacing the damaged range improvements.

Recreation:
To promote safety for hunters and project workers alike during hunting season, warning signs should be posted along access roads serving active construction and drilling sites to warn hunters of the presence of workers and associated vehicle traffic in the area.

Transportation/ Road Maintenance:
Commuting construction and drilling crews would be encouraged to car pool to reduce the number of vehicle trips on local area roads and associated wear and tear.

The operator would encourage commuting construction and drilling crews to comply with posted speed limits on public roads and limit driving speeds to 20 mph on more primitive access roads to reduce the potential for vehicle collisions. By complying with posted speed limit along County Roads, traffic-related noise would also be reduced at nearby residences

Road maintenance standards listed in GAP EA , Proposed Action will be used and implemented on BLM land and related road easements.

Terrestrial Wildlife:
As required by lease stipulation, EnCana will avoid construction or drilling activities within their federal leases from December 1 to April 30 in order to minimize impacts to wintering big game animals. Exceptions to this lease stipulation could be granted for federal surface locations during the last 60-days (i.e., March 1 – April 30) of the timing limitation under mild winter conditions. Severity of winter conditions will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether big game were concentrated on winter range within the area during the winter months.

For the pad and access road locations that do not have an identified Timing Limitation for Big Game Winter Habitats listed in the Lease, the 60 day Condition of Approval for Big Game Habitat identified in Appendix D-1 in the GSRA Oil & Gas Final SEIS (approved March 24, 1999) will be invoked. This COA states: "To protect crucial big game winter range on leases without timing restrictions, construction and drilling activities are prohibited from January 15 through March 15." The rationale for invoking this COA is based on field review and the updated Colorado Division of Wildlife Big Game Winter Habitat mapping which clearly identifies the well location and access road within these crucial winter ranges.

EnCana will notify all employees that conviction of a major game violation within the GAP area could result in disciplinary action or dismissal (of contractors).

EnCana will not permit hunting and dogs within the Project Area during working hours by employees or contractors.

Main access roads will be signed to restrict vehicular use to oil and gas company personnel only.

Remote monitoring will be conducted during the winter months to minimize site visits to pad locations and reduce traffic impacts to wintering big game wildlife. In addition, scheduled winter visits (those other than for emergency purposes), should be scheduled between 10 a.m. and 3 p.m. to further minimize disturbance to wintering big game wildlife.

Threatened, Endangered and Sensitive Species:
Any discoveries of previously unknown bald eagle nesting or roosting sites would be addressed by application of the appropriate stipulations and consultation with the USFWS prior to commencement of development activities.

Biological inventories (surveys) for sensitive plant species will be conducted in potential new disturbance areas not covered in the GAP EA.

Mitigation of impacts to special status plants would include 1) relocating gas activities and facilities to minimize direct impacts; 2) requiring EnCana to seed the well pads with native species, including species that provide direct competition with cheatgrass, such as bottlebrush squirreltail, and/or Sandberg bluegrass; 3) ensuring that seeding occurs at the appropriate time of

year to optimize the potential for seeding success; and 4) requiring EnCana to control all noxious weeds within the disturbed areas.

Vegetation:
Where road, pipeline or pad construction requires the removal of pinyon pine trees between late March to early November, the trees will disposed of within 24 hours of disturbance in the following manner to avoid attracting pinyon *Ips* beetles into live standing trees and mitigate effects of ongoing *Ips* beetle infestation in the local area: (1) broken down with earthmoving equipment and buried in excess material pile or at toe of fillslopes; (2) cut down, sectioned and chipped with Hydroaxe-type equipment capable of chipping large pinyon trees; or (3) cut and removed trees from BLM land and hauled to Colorado State Forest Service-approved disposal site.

Visual Resources:
To help mitigate the contrast of bare, re-contoured slopes, reclamation will include measures to feather cleared lines of vegetation, and to save and re-distribute cleared trees, debris, and rock over re-shaped cut and fill slopes.

To reduce the view of production facilities from visibility corridors and private residences, facilities will not be placed in visually exposed locations (i.e., they will be located against backdrops or cut side of pad) and will be placed to allow the maximum re-shaping of cut and fill slopes. Furthermore, all above ground facilities will be painted Shale Green (Munsell 5Y 4/2) to blend with the existing landscape.

Trees and vegetation would be left along the edges of the pads whenever feasible. Berms may need to be constructed on the fill portion on leading edges of pads with substantial cuts and fills.

Wastes, Hazardous or Solid:
Any release (leaks or spills) of hazardous substances in excess of the reportable quantity, as established by 40 CFR, Part 117, would be reported as required by the CERCLA of 1980, as amended. If the release of a hazardous substance in a reportable quantity would occur, a copy of a report would be furnished to the BLM and all other appropriate federal and state agencies. In addition, all releases to soil or water of 10 gallons or more of any substance would be immediately reported verbally to the BLM and COGCC compliance officers and proof of cleanup provided for the project record. This mitigation would be applied at all stages of the project including drilling, completion, operation, and abandonment of the wells.

Water Quality, Surface and Ground:
EnCana will implement aggressive reclamation and re-vegetation of disturbed areas not needed for operational activities. In addition EnCana will implement multiple BMPs including the following: New access roads will be crowned and ditched to allow water to flow off the road surface to reduce volume and velocity. Relief ditches will be installed at regular intervals to direct drainage off of the road grade and into vegetated areas, where it would infiltrate into the ground and/or sediment would settle out on the surface.

Ditches will be allowed to vegetate and/or will include large rocks or stones to slow the velocity of drainage and allow sediment to settle out. Where drainage ditches are installed to direct runoff away from the road on steeper grades, water bars or hay bale dikes will be installed nearly perpendicular to the flow direction of the ditch to reduce runoff velocity and settle out. EnCana's

road construction plans will identify specific locations of drainage features and BMPs for approval by the BLM prior to construction.

Any shallow groundwater zones encountered during drilling of the proposed wells would be properly protected and the presence of these zones reported to the BLM and COGCC. All usable water zones encountered (those with TDS less than 10,000 mg/L) must be isolated and protected, whether they are shallow or deep. Isolation of shallow zones would be accomplished by setting and cementing surface casing from a depth of at least 50 feet below the deepest water zone to the ground surface. Deeper water-bearing zones would be cemented off as required in the Master APD. For these zones, cementing would be used from 50 feet above to 50 feet below each water-bearing zone.

After the completion of drilling operations, the producing formation would be logged and production casing run and cemented in accordance with the drilling program approved in the APD.

All vehicles would be refueled at least 100 feet from stream channels.

EnCana would consult with the Army Corps of Engineers (for Section 404 permits) and with the State of Colorado Water Quality Control Division (for stormwater permits) prior to commencing construction activities within the OUGA. Written documentation to the BLM would be required to indicate that appropriate permits have been obtained or are not required by the authorizing agency.

In accordance with EnCana's standard policy, all reserve pits will utilize impermeable liners to contain drilling fluids. Following completion activities, pit liners would be removed at the respective landowner's request. At the discretion of EnCana and in cooperation with the respective landowner, closed-loop drilling systems may be used on well pads within 100 feet of intermittent drainages.

In accordance with EnCana's standard policy, erosion protection and silt retention techniques including construction of silt catchment dams, installation of culverts or drainage dips, placement of surface rock on approaches to stream crossings, placement of surface rock, straw bales, and/or matting will be used along proposed road reaches within 100-feet of stream channels.

Within areas less than 100 feet from intermittent drainages, an adequate vegetative buffer, artificial buffers (e.g., straw bales, matting, etc.), or filter strip will be maintained between the road and the drainage to filter runoff from the road before it reaches the creek, wherever possible.

Reclamation Plan.
Refer to Appendix I. Surface Reclamation of the 6/98 GSFO's Draft Supplemental EIS for Oil & Gas Leasing Development (pages I-1 through I-8) for specific reclamation goals, objectives, timelines, measures and monitoring methods. These guidelines will be followed in completing the reclamation of disturbed surfaces on well pads, access roads and pipelines.

Some effective practices that will be implemented during reclamation include, but are not limited to: proper siting of the well pad to minimize impacts, the immediate seeding of disturbed areas after construction, proper storage and redistribution of topsoil, reshaping cut and fill slopes, seeding with specified seed mix within the first available growing season after disturbance, deep ripping (>18 inches on 2 foot centers), fencing reclaimed areas to protect from livestock use, and the use of riprap, slash or other erosion control structures to help control sediment loss.

The 4 Reclamation Categories defined on Page I-8 of Appendix I (6/98 GSFO's Draft Supplemental EIS for Oil & Gas Leasing Development) will be used in gauging the progress of reclamation monitoring.

Seed Mix Application Practices

The specified seed mix designed to meet interim reclamation standards while providing forage and browse for wintering elk and deer using a mixture of shrub, grass and forb species shall be applied. The following seed mix and rates will be used on all disturbed surfaces, including pipelines unless otherwise noted in the specific APD:

Species of Seed	Variety	Application Rate (PLS lbs/ac)
Mountain big sagebrush		0.5
True Mountain mahogany		2.0
Western wheatgrass	Arriba	3.0
Bottlebrush squirreltail		2.0
Indian ricegrass	Paloma	1.5
Prairie junegrass		1.5
Arrowleaf balsamroot		0.5
American vetch		1.0
Total		**12.0**

The seed mix may be modified with approval from the BLM based on site-specific conditions, the identification of additional useful species for site stabilization, cheatgrass competition, and winter wildlife habitat needs, species success in past revegetation efforts, and seed availability and cost. Native species will be used unless they are proven unsuitable for meeting BLM's reclamation objectives.) Reclamation would be considered successful when the objectives described in the Glenwood Springs Resource Area Reclamation Policy are achieved.

The above rate of application is listed in pounds of pure live seed (PLS)/acre. The seed will be certified and there will be no primary or secondary noxious weeds in the seed mixture. The operator shall notify the Authorized Officer 24 hours prior to seeding and shall provide evidence of certification of the seed mix to the Authorized Officer within 30 days of completion of the seed application.

Upon completion of backfilling, leveling, ripping to minimum 18-inch depth on 2-foot centers, and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed areas(s). Prior to reseeding, all disturbed surfaces will be scarified and left with a rough surface. No depressions will be left that would trap water and form ponds.

The prepared seedbed will be seeded within 24 hours after completing dirt work unless a change is requested by the operator and approved by the Authorized Officer. Prepare the seedbed by contour cultivating 4-6 inches deep. Drill seed ¼ to ½ inch deep following the contour. In areas that cannot be drilled, broadcast seed at 1½ times the application rate and cover ½ to 1 inch deep with a harrow or drag bar. All seeding will be conducted after September 1 and prior to ground frost. Spring seeding will be done after the frost leaves the ground and no later than May 15th. If the seeding is unsuccessful, operator will be required to make subsequent seedings until the reclamation objectives identified in Appendix I. Surface Reclamation of the 6/98 GSFO's Draft Supplemental EIS for Oil & Gas Leasing Development are met.

The reclamation contractor will utilize a seed drill capable of correctly planting the various types of seeds included in the specified seed mixes.

For seed planted using broadcast methods (e.g., sagebrush), raking or harrowing immediately before and after seeding will be necessary to ensure adequate seed/soil contact. For best success, broadcast seeding of sagebrush in strips is recommended.

Areas being reclaimed will be fenced (using fence type approved by Authorized Officer) to exclude livestock for the first two growing seasons or until the seeded species have established. Species will be considered established when 50 percent of the seeded species are producing seed.

Erosion Control Practices

The cut and fill slopes will be protected against rilling and erosion with measures such as water bars, lateral furrows, or other measures approved by the Authorized Officer. Weed free straw bales, straw "wattles", straw matting or a well-anchored fabric silt fence will be used on cuts and fill slopes to protect against soil erosion.

Topsoil Practices

During well pad, road and/or pipeline construction, topsoil will be stripped to a minimum depth of 6 inches and segregated from other subsurface material piles, i.e. excess material from reserve pit construction. If topsoil is less than 6 inches, the top 6 inches of surface material will be stripped and piled. The topsoil piles will be seeded within 48 hours of stockpiling.

Site Protection Practices

Reclaimed areas will be fenced to exclude livestock until seeded species have established. The Authorized Officer will approve the type of fencing. Fencing shall be to BLM standards

The operator will submit an annual reclamation report by December 31 to the Authorized Officer. The report will document compliance with all aspects of the reclamation objectives. The report will specify if the reclamation objectives are likely to be achieved and actions needed to meet these objectives.

Down Hole - Standard Conditions of Approval

NOTIFICATION REQUIREMENTS

Location Construction	-	at least forty-eight (48) hours prior to construction of location and access roads.
Spud Notice	-	at least twenty-four (24) hours prior to spudding the well.
Casing String and Cementing	-	at least twenty-four (24) hours prior to running casing and cementing all casing strings.
BOP and Related Equipment Tests	-	at least twenty-four (24) hours prior to initiating pressure tests.
First Production Notice	-	within five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days.
Reclamation		At least (24) hours prior to re-shaping the well pad.

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

REGULATORY REMINDERS

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease, which would entitle the applicant to conduct operations thereon.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors.

A copy of the approved application for permit to drill (APD), including the conditions of approval and accompanying surface use plan will be furnished to the field representative by the operator to insure compliance and will be available to authorized personnel at the drill site whenever active construction or drilling operations are underway.

Fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

All operations, unless otherwise specifically approved in the APD, must be conducted in accordance with Onshore Oil and Gas Order No. 2.

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

Any usable water zones encountered below the surface casing shall be isolated and or protected by cementing across the zone. The minimum requirement is to cement from 50 feet above to 50 feet below each usable water zone encountered.

If gas is found to be present in the Wasatch formation, then the zone will need to be isolated either by the primary cement job or remedial cementing.

2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a 3M system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

3. Casing Program and Auxiliary Equipment

The surface casing **shall** be cemented back to surface either during the primary cement job or by remedial cementing. Leak-off tests of the casing shoe will be performed and recorded for all wells.

4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the AO. However, DSTs may be allowed to continue at night if the test was initiated during daylight

hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vapor proof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the AO.

A cement bond log (CBL) will be run from the production casing shoe to **TOC** and shall be utilized to determine the bond quality for the production casing.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. **One** copy of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

6. Notifications of Operations

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The Glenwood Springs Field Office shall be notified, during regular work hours (7:45 a.m.-4:30 p.m., Monday through Friday except holidays), at least 24 hours **prior** to spudding the well.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by

telegram or other written communication, not later than five (5) days following the date on which the well is placed on production.
A schematic facilities diagram as required by 43 CFR 3162.7-5 (b.9. d.), and shall be submitted to the appropriate District Office within sixty (60) days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5 (b. 4).

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

All loading lines will be placed inside the berm surrounding the tank battery.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

All open-vent exhaust stacks associated with heater-treater, separator, and dehydrator units must be constructed to prevent birds and bats from entering them and to the extent practical to discourage perching and nesting.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted following initial installation and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter-proving schedules. A copy of the meter calibration reports will be submitted to the Grand Junction Field Office. All meter measurement facilities will conform to Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All

wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to $10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

In the event after-hours approval or notification is necessary, please contact one of the following individuals:

Marty O'Mara Petroleum Engineer		C: 970.319.5837 W: 970.947.2825
Jerry Francis Petroleum Engineering Tech.	H: 970.242.8410	W: 970.244.3043 C: 970.250.5735
Carol Snyder Petroleum Engineering Tech.	H: 970.255.9339	W: 970.244.3033 C: 970.216.6146
Jim Byers Natural Resource Specialist		W: 970.947.2804
BLM Fax: 970.947.2829		

APPENDIX C

SITE-SPECIFIC CONDITIONS OF APPROVAL for the GANT GULCH GAP

C36W Pad

New wells:	**1-2**	**1-3**	**1-4**
	36-13C	**36-14C**	**36-15C**
	36-13	**36-14**	**36-15**
	25-15C	**25-14C**	**36-10C**
	36-11C		

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

D2SW Pad **New wells: 2-2 2-3 2-4**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. Although there is no specific Timing Limitation for Big Game Winter Habitats listed in the Lease, the 60 day Condition of Approval for Big Game Habitat identified in Appendix D-1 in the GSRA Oil & Gas Final SEIS (approved March 24, 1999) will be invoked. This COA states: "To protect crucial big game winter range on leases without timing restrictions, construction and drilling activities are prohibited from January 15 through March 15." The rationale for invoking this COA is based on field review and the updated Colorado Division of Wildlife Big Game Winter Habitat mapping, which clearly identifies the well location and access road within these crucial winter ranges.

3. This well is on Federal surface with rating of VRM Class III. To reduce visual impacts, relocate/shift pad 100-150 feet east and downhill. Delete the planned switchback for access road and swing road into pad from NE. In order to mitigate long term contrasts within the landscape and enhance reclamation efforts, move all facilities for this pad north 2500 feet to the N26W pad. Matting and/or hydro-seeding may also be necessary be reduce a high degree of color contrast.

4. Maintain usable access route for existing 2-track that bisects the proposed pad.

D25W Pad

New wells:	**25-3**	**24-4**	**25-4**
	25-4C	**25-5**	**26-1**
	26-1	**26-8**	**26-1C**
	23-16	**23-16C**	

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. The Controlled Surface Use stipulation is in effect for the wells on this lease to protect VRM Class II visual resource management areas.

3. The Controlled Surface Use stipulation is in effect on this lease to protect fragile soils.

4. The stipulation for lease # C-54738 for protecting big game winter habitat is the timing limitation from December 1 to April 30. Exception may be allowed for the last 60 days, if mild winter conditions exist.

5. This well pad is on Federal surface and is rated as VRM Class III. To minimize visual impact, reduce excess spoil material from SE edge of the pile (30,000 cu yd) down to 13,000 cu yd pile SW of pad near access road if too much excess is piled between D25W and M24W. Create enough room on D25W to set all tanks for both pads on D25W. This will increase reclamation potential on M24W and reduce overall total disturbed area.

Efforts should be made to minimize disturbance to the trees on the Eastern, Northern and Western sides of pads M24W and D25W. In order to minimize long term contrasts and possible visibility from KOPs below, the facilities for these two pads should be co-located and carefully placed at a location that will not be visible from valley floor (location to be determined after pad construction).

6. For the Fall 2005 drilling work, a steel frame gate will be installed and gatekeeper will also be positioned at the proposed gate location along the D25W/M24W access road near the boundaries of Pitman, Couey 1 and Shideler Ind allotments. To mitigate potential trespass problems between livestock allotments, EnCana will install and test an automatic opening/closing gate along the D25W/M24W access road near the boundaries of Pitman, Couey 1 and Shideler Ind allotments. The “automatic” gate will be installed prior the Spring 2006 drilling operations.

Prior to Spring 2006 livestock turnout (provided construction work is allowed outside winter timing limitation period), EnCana will construct and maintain livestock fence (final location to be determined by field review with livestock permittees, EnCana and BLM personnel) that would separate Pitman and Couey 1 allotments.

F26W Pad **New wells: 26-7 26-6 26-10**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. The Controlled Surface Use Stipulation for lease # C-54738 would protect Class II visual resource management areas.

3. The Controlled Surface Use stipulation is in effect on this lease to protect fragile soils.

4. The stipulation for lease # C-54738 for protecting big game winter habitat is the timing limitation from December 1 to April 30. Exception may be allowed for the last 60 days, if mild winter conditions exist.

5. The stock pond southwest of the pad below access road will need protection – use soil BMPs to protect pond from siltation.

6. EnCana will construct and maintain livestock fence (final location to be determined by field review with livestock permittees, EnCana and BLM personnel) that would separate Pitman and Couey 1 allotments.

G1SW Pad	**New wells:**	**1-1**	**1-1C**	**1-2C**
(Existing location)		**1-3C**	**1-8**	**1-8C**
		1-9	**1-10B**	**1-10**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

H2SW Pad

New wells: 1-4C 1-5C 2-8C 2-7

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. Although there is no specific Timing Limitation for Big Game Winter Habitats in the Lease, the 60 day Condition of Approval for Big Game Habitat identified in Appendix D-1 in the GSRA Oil & Gas Final SEIS (approved March 24, 1999) will be invoked. This COA states: "To protect crucial big game winter range on leases without timing restrictions, construction and drilling activities are prohibited from January 15 through March 15." The rationale for invoking this COA is based on field review and the updated Colorado Division of Wildlife Big Game Winter Habitat mapping which clearly identifies the well location and access road within these crucial winter ranges.

3. On the H2SW and I2SW well pads, the Timing Limitation listed on Lease #COC-55605 will apply to protect an active red-tailed hawk nest identified during the raptor survey. The TL will apply until young have been documented by a qualified biologist as having fledged and dispersed from the nest, or August 15th – whichever occurs first.

4. Monitoring by qualified paleontologist will be required within 200 feet of the known fossil localities (5GF3715 and 5GF3716) which fall generally within vicinity of the H2SW well pad and access road and the access road to the K2SW pad. This supports recommendations by Uinta Paleontological Associates, Inc. outlined in Field Survey Reports for I2SW and K2SW pads. If significant fossil resources are found during the monitoring, they will be collected and curated at the University of Colorado Museum.

5. Well pad H2SW is located on Federal surface and is classified as VRM Class III. In order to enhance reclamation efforts and reduce contrasts, layback cut slopes as much as possible. Matting and/or hydro-seeding may also be necessary be reduce a high degree of color contrast.

6. Protect existing stock pond in the draw west of the pad from any disturbance.

I27W Pad **New wells: 26-5 26-12**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. The stipulation for lease # COC-55605 is Controlled Surface Use to protect fragile soils.

3. Although there is no specific Timing Limitation for Big Game Winter Habitats listed in the Lease, the 60 day Condition of Approval for Big Game Habitat identified in Appendix D-1 in the GSRA Oil & Gas Final SEIS (approved March 24, 1999) will be invoked. This COA states: "To protect crucial big game winter range on leases without timing restrictions, construction and drilling activities are prohibited from January 15 through March 15." The rationale for invoking this COA is based on field review and the updated Colorado Division of Wildlife Big Game Winter Habitat mapping which clearly identifies the well location and access road within these crucial winter ranges.

4. Additional cultural inventory would be required if the pipeline/access roads to the C2SW, N26W, I27W, P27W, and K2SW are constructed to a width that exceeds 75 feet. These routes were inventoried to cover corridors 100 feet wide, so that the current level of inventory will probably only accommodate an access road or pipeline right-of-way, but not both, along these segments of the proposed APE.

5. Sheet 7 shows storage tanks placed at edge of fill. Move tank settings so they are further south toward road access onto pad and away from fill slope. This will allow for optimal interim reclamation opportunities and mitigate visual concerns.

I2SW Pad **New wells: 1-11 1-12C**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. Although there is no specific Timing Limitation for Big Game Winter Habitats listed in the Lease, the 60 day Condition of Approval for Big Game Habitat identified in Appendix D-1 in the GSRA Oil & Gas Final SEIS (approved March 24, 1999) will be invoked. This COA states: "To protect crucial big game winter range on leases without timing restrictions, construction and drilling activities are prohibited from January 15 through March 15." The rationale for invoking this COA is based on field review and the updated Colorado Division of Wildlife Big Game Winter Habitat mapping which clearly identifies the well location and access road within these crucial winter ranges.

3. On the H2SW and I2SW well pads, the Timing Limitation listed on Lease #COC-55605 will apply to protect an active red-tailed hawk nest identified during the raptor survey. The TL will apply until young have been documented, by a qualified biologist, as having fledged and dispersed from the nest, or August 15th – whichever occurs first.

4. Protect existing range fence south of the well pad. Maintain accessibility to the 2-track road south of pad.

J6SE Pad

New wells: 6-11 6-10 6-6 6-6C

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. The timing limitation for Game Species for lease # C-51156 specifies that no surface use would be allowed between January 16 through April 29 to protect critical deer and elk winter range.

3. In order to reduce the impacts of a linear line within the landscape, the access road (on federal surface) associated with J6SE should be moved to the south and east to follow the contours of the existing vegetation/tree line.

4. Move the tank setting north towards road access onto the pad. Avoid tank placement on fill to optimize reclamation potentials. Pinyon pines within proposed pad disturbance will be chipped within 24 hours of grubbing or cutting, or buried in the excess material pile.

K19E Pad

New wells: **24-8** **24-8C** **24-9** **24-9C** **24-16** **24-16D** **19-11** **19-11D** **19-14** **19-14C**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. The timing limitation for Game Species for lease # C-56258 specifies that no surface use would be allowed between January 16 through April 29 to protect critical deer and elk winter range.

3. Matting and/or hydro-seeding will be used during interim reclamation work to stabilize the tall cutslopes, ensure suitable seed establishment and mitigate visual concern s from County Road 316.

4. Install adequately –sized culvert (based on ACE consultation) in dry gulch for proposed road. Push up berm near top of cutslope during topsoil clearing to create barrier that directs off-site run-off away from pad.

5. To reduce height of proposed cutslopes and overall width of pad, cutslope along south end of pad will run from PT 7 to PT 6, then east to midpoint between PIT A and PIT B corners effectively deleting PT 4 and PT 5. Wells on pad would be drilled with closed-loop system, foregoing need for reserve pit. If reserve pit is deemed necessary, it would be narrowed and lengthened to fit into changed pad layout as described herein. Frac pit could be constructed on pad at SW corner after drilling is completed. A temporary surface water line could also be run to nearby F19 pad where frac tanks could be staged in support of completion work on K19E wells.

K2SW Pad **New wells: 2-10C 2-11 2-12C**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. Although there is no specific Timing Limitation for Big Game Winter Habitats listed in the Lease, the 60 day Condition of Approval for Big Game Habitat identified in Appendix D-1 in the GSRA Oil & Gas Final SEIS (approved March 24, 1999) will be invoked. This COA states: "To protect crucial big game winter range on leases without timing restrictions, construction and drilling activities are prohibited from January 15 through March 15." The rationale for invoking this COA is based on field review and the updated Colorado Division of Wildlife Big Game Winter Habitat mapping which clearly identifies the well location and access road within these crucial winter ranges.

3. Additional cultural inventory will be required if the pipeline/access roads to the C2SW, N26W, I27W, P27W, and K2SW are construction to a width that exceeds 75 feet. As stated earlier these routes were inventoried to cover corridors 100 feet wide, so that the current level of inventory will probably only accommodate an access road or pipeline right-of-way, but not both, along these segments of the proposed APE.

4. On the K2SW pad, a 60-day timing limitation will be enforced (between February 1 and August 15) to protect the above-mentioned active red-tailed hawk nest identified during the raptor survey. The TL will apply until young have been documented by a qualified biologist as having fledged and dispersed from the nest, or August 15th – whichever occurs first.

5. Monitoring by qualified paleontologist will be required within 200 feet of the known fossil localities (5GF3715 and 5GF3716) which fall generally within vicinity of the H2SW well pad and access road and the access road to the K2SW pad. This supports recommendations by Uinta Paleontological Associates, Inc. outlined in Field Survey Reports for I2SW and K2SW pads. If significant fossil resources are found during the monitoring, they will be collected and curated at the University of Colorado Museum.

6. Construct low water crossing along existing road from H2SW instead of culvert installations. Install adequately–sized culvert (based on ACE consultation) in the deep gully located just south of proposed pad. Reduce the reserve pit width (by 30-40 feet) at the north side between PIT B and PIT C to maintain adequate space between existing drainage directly north of pad. Construct adequate berm against south edge of creek with overburden to deflect any creek flows away from reserve pit.

M23W Pad **New wells: 23-13 26-4**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. The road and pad are visible from CR319 and lie within the VRM Class II area. The current Proposed Action for the M23W and N23W and associated access road does not meet VRM Class II objectives. No mitigation has yet been developed that will bring the M23W and N23W wells or access road into conformance Adopt recommendations for visual mitigation being developed by Otak.

3. The wells in lease #C-52889 have a Controlled Surface Use provision to protect fragile soils.

4. Although there is no specific Timing Limitation for Big Game Winter Habitats listed in the Lease, the 60 day Condition of Approval for Big Game Habitat identified in Appendix D-1 in the GSRA Oil & Gas Final SEIS (approved March 24, 1999) will be invoked. This COA states: "To protect crucial big game winter range on leases without timing restrictions, construction and drilling activities are prohibited from January 15 through March 15." The rationale for invoking this COA is based on field review and the updated Colorado Division of Wildlife Big Game Winter Habitat mapping which clearly identifies the well location and access road within these crucial winter ranges.

5. Install adequately –sized culvert (based on ACE consultation) in the dry gulch for the proposed road.

6. Push up berm near top of cut-slope during topsoil clearing to create barrier that directs off-site run-off away from pad.

M24W Pad

New wells:	**24-11C**	**24-15**	**24-10C**
	24-12	**24-12C**	**24-13**
	24-13C	**24-14**	**24-14C**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. The stipulation on lease # C-54738 for protecting big game winter habitat is the timing limitation from December 1 to April 30. Exception may be allowed for the last 60 days, if mild winter conditions exist.

3. The wells on lease #C-54738 include a Controlled Surface Use stipulation to protect Class II visual resource management areas.

4. The wells on lease #C-54738 include a Controlled Surface Use stipulation to protect fragile soils.

5. Efforts should be made to minimize disturbance to the trees on the Eastern, Northern and Western sides of pads M24W and D25W. In order to minimize long term contrasts and possible visibility from KOPs below, the facilities for these two pads should be co-located and carefully placed at a location that will not be visible from valley floor (location to be determined after pad construction).

6. Chip or bury pinyon pines within proposed pad disturbance area within 24 hours of grubbing or cutting. Relocate excess material pile (6,000 cy) proposed for SE side of pad to an area directly north of reserve pit – minimize disturbance of standing trees on east, north and west side of pad.

7. To mitigate potential livestock trespass problems between livestock allotments, EnCana will install and test a solar powered gate along the D25W/M24W access road near the boundaries of Pitman, Couey 1 and Shideler Ind allotments. A gatekeeper will also be positioned at this gate location during any drilling work on the D25W or M24W pads to ensure gate security.

8. EnCana will construct and maintain livestock fence (final location to be determined by field review with livestock permittees, EnCana and BLM personnel) that would separate Pitman and Couey 1 allotments.

N23W Pad

New wells:	23-15	23-10	23-11A
	23-11D	23-10C	23-14
	26-2	26-2	

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. The stipulation on lease # C-54738 for protecting big game winter habitat is a timing limitation from December 1 to April 30. Exception may be allowed for the last 60 days, if mild winter conditions exist.

3. The current proposed action for the M23W and N23W and associated access road does not meet VRM Class II objectives. No mitigation has yet been developed that will bring the M23W and N23W wells or access road into conformance. Re-locate facilities to M23W pad. Adopt recommendations for visual mitigation being developed by Otak.

4. The wells in lease #C-52889 have a Controlled Surface Use provision to protect fragile soils.

N26W Pad **New wells: 26-14 26-15 35-10C**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. The wells on lease #C-52889 include a Controlled Surface Use stipulation to protect Class II visual resource management areas. To reduce the visibility of production facilities from visibility corridors, facilities will not be placed in visually exposed locations. Rather, facilities will be placed against backdrops or cut sides of pads and will be placed to allow the maximum re-shaping of cut and fill slopes.

3. The wells on lease #C-52889 include a Controlled Surface Use stipulation to protect fragile soils.

4. Although there is no specific Timing Limitation for Big Game Winter Habitats listed in the Lease, the 60 day Condition of Approval for Big Game Habitat identified in Appendix D-1 in the GSRA Oil & Gas Final SEIS (approved March 24, 1999) will be invoked. This COA states: "To protect crucial big game winter range on leases without timing restrictions, construction and drilling activities are prohibited from January 15 through March 15." The rationale for invoking this COA is based on field review and the updated Colorado Division of Wildlife Big Game Winter Habitat mapping which clearly identifies the well location and access road within these crucial winter ranges.

5. Additional cultural inventory will be required if the pipeline/access roads to the C2SW, N26W, I27W, P27W, and K2SW are construction to a width that exceeds 75 feet. As stated earlier these routes were inventoried to cover corridors 100 feet wide, so that the current level of inventory will probably only accommodate an access road or pipeline right-of-way, but not both, along these segments of the proposed APE.

6. Install steel frame gate (based on input from livestock permittees) where proposed road bisects grazing allotment fence just east of pad.

7. During pad construction, room will be provided for additional tanks and production pack settings supporting the wells on D2SW pad (facilities for D2SW wells will be co-located on N26W pad to mitigate visual concerns with D2SW pad).

O31E Pad

New wells: **6-3C (3960’ FSL)** **6-3C (4620’ FSL)**
34-14 **31-15**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

P26W Pad

New wells: **25-13C** **26-9** **26-16**
35-9C **36-12C**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. If any portion of the P26W pad falls onto BLM surface, the following winter timing limitation will be invoked:
Although there is no specific Timing Limitation for Big Game Winter Habitats listed in the Lease, the 60 day Condition of Approval for Big Game Habitat identified in Appendix D-1 in the GSRA Oil & Gas Final SEIS (approved March 24, 1999) will be invoked. This COA states: "To protect crucial big game winter range on leases without timing restrictions, construction and drilling activities are prohibited from January 15 through March 15." The rationale for invoking this COA is based on field review and the updated Colorado Division of Wildlife Big Game Winter Habitat mapping which clearly identifies the well location and access road within these crucial winter ranges.

3. Since an active Cooper's hawk nest is located adjacent (within 1/8 mile) to the proposed P26W pad, a survey will be conducted by May 15 to determine the status and use of the nest. Unless this nest is not active next breeding/nesting season by May 15, or unless evidence is presented that shows how the geographical relationship to the nest site of topographic barriers and vegetative screening sufficiently hides/protects the nest, this pad will have to be moved 200 meters and/or the implementation of a 60 day timing limitation (if pad lies within ¼ mile of nest) to mitigate the proximity of proposed pad to the nest.

P27W Pad **New wells: 26-13 27-16 35-12C**

1. Standard Conditions of Approval outlined in Appendix B of the Gant Gulch GAP will apply and remain in full force and effect.

2. Although there is no specific Timing Limitation for Big Game Winter Habitats listed in the Lease, the 60 day Condition of Approval for Big Game Habitat identified in Appendix D-1 in the GSRA Oil & Gas Final SEIS (approved March 24, 1999) will be invoked. This COA states: "To protect crucial big game winter range on leases without timing restrictions, construction and drilling activities are prohibited from January 15 through March 15." The rationale for invoking this COA is based on field review and the updated Colorado Division of Wildlife Big Game Winter Habitat mapping which clearly identifies the well location and access road within these crucial winter ranges.

3. Additional cultural inventory will be required if the pipeline/access roads to the C2SW, N26W, I27W, P27W, and K2SW are construction to a width that exceeds 75 feet. As stated earlier these routes were inventoried to cover corridors 100 feet wide, so that the current level of inventory will probably only accommodate an access road or pipeline right-of-way, but not both, along these segments of the proposed APE.

4. To reduce the visibility of production facilities from visibility corridors, facilities will not be placed in visually exposed locations. Rather, facilities will be placed against backdrops or cut sides of pads and will be placed to allow the maximum re-shaping of cut and fill slopes.

APPENDIX D

SURVEY PLAT INFORMATION for the GANT GULCH GAP

Detailed survey plat information for the new well pads and associated wells requiring federal authorization is available for review from the BLM Glenwood Springs Field Office upon request.

APPENDIX E

WILDLIFE THRESHOLD CALCULATIONS
for the
GANT GULCH GAP

WILDLIFE THRESHOLD CALCULATIONS for the GANT GULCH GAP

ACREAGE:
Total BLM surface ac = 2612 ac
Total split estate involving federal minerals = 132 ac
Total FEDERAL acres in GAP area: **2,744 ac**
Total federal (2,744) and fee (285) ac within GAP boundary: **3,029 ac**

PROPOSED PADS:
13 BLM surface locations
4 Split Estate Locations = **17 proposed pads with BLM involvement**

PAD THRESHOLD

FEDERAL LANDS:
2,744 ac/640 ac per section = 4.29 'sections' x 4 pads/section = **17.16 pads allowed under threshold.**
13 proposed federal pads + **0 existing** federal pads = **13 BLM pads in GAP boundary.**

ALL LANDS: (Cumulative effects)
3029 ac/640 ac = 4.73 'sections' x 4 pads/section = **18.92 pads allowed under threshold figure.**
13 proposed federal pads + 0 existing federal pads + 1 existing and 4 proposed fee pads = **18**

ROAD THRESHOLD

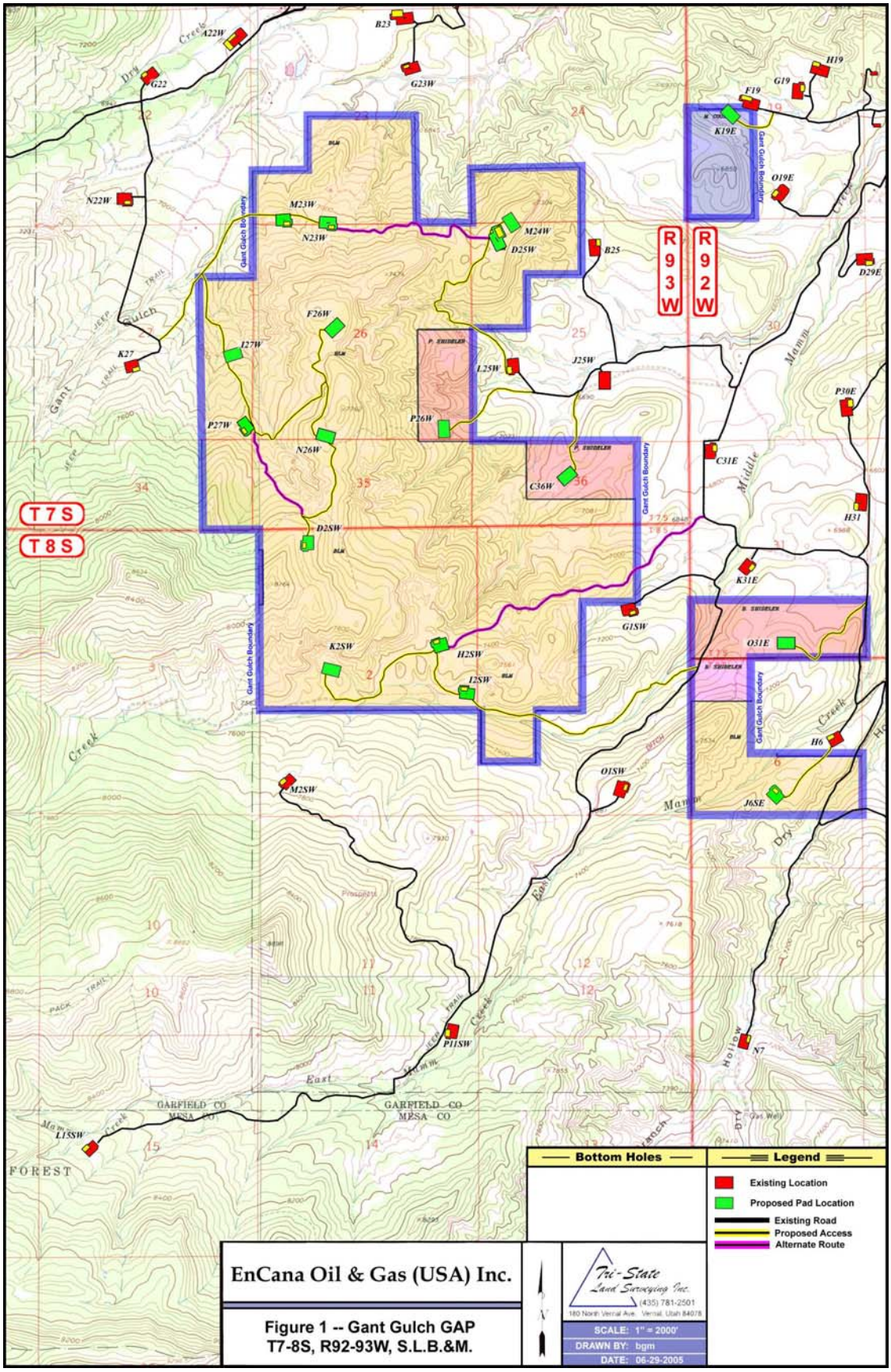
FEDERAL LANDS:
4.29 'sections' x 3.0 miles of new roads/section = **12.87 road miles allowed under the threshold.**
5.53 miles of proposed roads and 0.33 miles of existing roads attributed to oil & gas development on federal surface or split estate lands = **5.86 miles of roads within GAP boundary**.

ALL LANDS: (Cumulative Effects)
4.73 'sections' x 3.0 miles/section = **14.19 miles allowed under the threshold.**
0.58 miles of existing and 6.38 miles of proposed roads attributed to oil & gas development regardless of land ownership = **6.96 miles of roads within GAP boundary.**

From BLM "Oil and Gas Leasing and Development Final Supplemental Environmental Impact Statement, January 1999, Record of Decision Appendix B, Management of Lease Development - #5. Impacts on Wildlife Habitat. "It is not BLM's intent that O&G operators be held accountable for mitigation of habitat impacts due to residential, agriculture or other commercial users, including impacts associated with highways and county roads.

APPENDIX F

ORIGINAL GAP MAP (JUNE 2005)
for the
GANT GULCH GAP


R 93 W
R 92 W
T 7 S
T 8 S
Gant Gulch Boundary
Bottom Holes
Legend
Existing Location
Proposed Pad Location
Existing Road
Proposed Access
Alternate Route
EnCana Oil & Gas (USA) Inc.
Figure 1 -- Gant Gulch GAP
T7-8S, R92-93W, S.L.B.&M.
Tri-State Land Surveying Inc.
(435) 781-2501
180 North Vernal Ave. Vernal, Utah 84078
SCALE: 1" = 2000'
DRAWN BY: bgm
DATE: 06-29-2005
GARFIELD CO
MESA CO
FOREST

APPENDIX G
VIEWSHED ANALYSIS
for the
GANT GULCH GAP
(prepared by Otak)